

REMARKS**Introductory Comments:**

Claims 1-20 are pending in the application, and claim 10 is allowed. Claims 15 and 19 are rejected under 35 U.S.C. §112, first paragraph, as failing to comply with the enablement requirement. Claims 1-9 and 11-20 are rejected under 35 U.S.C. §112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which the Applicant regards as the invention. Claim 9 is cancelled. The Applicant respectfully requests reconsideration of claims 1-8 and 11-20. Also, objections were made in the office action regarding the drawings and the disclosure, and those rejections are addressed herein as well.

In Response to the Drawing Objection:

The Applicant has amended the drawings and the detailed description to overcome the objections with the drawings and have substituted one sheet of drawings submitted herewith containing Figure 4 in place of the originally filed drawing sheet containing the same figure. The Applicant has also amended paragraph [0042] to clarify Applicant's original intent regarding system components as claimed in claim 18. Specifically, paragraph [0042] has been amended to include "herein, the filter 31 is included in the linearizer 29." Appropriate reference is also included in Figure 4 for the filter 31. No new matter has been added. The Applicant believes that in view of the aforementioned, the objection to the drawings is hereby overcome.

In Response to the Disclosure Objections:

Paragraph [0022] has been amended such that the paragraph is referring to Figures 1 and 4 rather than, as previously, Figure 2. Regarding the objection to paragraph [0027], line 7, according to the Examiner "Newton's" should be corrected. Applicant, however, believes that the spelling of "Newton's" in reference to Newton's second law of motion is in fact correct, as it is referring to the last name of Sir Isaac Newton. Applicant therefore traverses this objection.

Regarding the objection to paragraph [0033], line 9, and lines 10-15 have been amended such that (a₁) and (a₂) have been included in place of the originally included (a). Regarding the objection to paragraph [0039], line 6 has been amended in accordance with the Examiner's suggestion. No new matter has been added.

In Response to the Claim Rejections:

As mentioned, claims 15 and 19 are rejected under 35 U.S.C. §112, first paragraph, as failing to comply with the enablement requirement. The Office Action alleges that the claims contain subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains or with which it is most clearly connected, to make and/or use the invention. In response to this rejection, Applicant amends paragraph [0039] to include:

"in other words, the polarity of f_1 is positive if d_1 is increasing and negative if d_1 is decreasing. Likewise, the polarity of f_2 is positive if d_2 is increasing and negative when d_2 is decreasing. Determinations of increasing or decreasing d_1 and d_2 may be made by, for example, the processor 14."

The Applicant believes that the aforementioned amendment to paragraph [0039] is inherent in the previous paragraph [0038], which states that the frequencies (f_1 and f_2)

are functions of the distances (d_1 and d_2) respectively. No new matter has been added.

The Applicant believes that in view of the aforementioned amendments to paragraph [0039], the rejection of claim 15 is hereby overcome.

Regarding the rejection of claim 19, it was not clear to the Examiner how the accelerometers arranged to receive crossed-access thrust data. In response to this rejection, the Applicant would like to draw the Examiner's attention to paragraph [0025], which includes that the three accelerometers 12, 15, and 17 include flex axis oriented orthogonally to one another. As is known in the art, cross axis thrust data or lateral sensitivity data may be picked up in a direction perpendicular to the sensitive axis of the accelerometer. Therefore, as the aforementioned orientation of flex axis accelerometers moves, each accelerometer receives data along an axis orthogonal to the other two accelerometers, and this is also referred to as cross axis thrust data. The Applicant believes that the objection to claim 19 is hereby overcome. No new matter has been added.

Claims 1-9 and 11-20 are rejected under 35 U.S.C. §112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which the Applicant regards as the invention. Regarding claim 1, the Examiner concluded that there is insufficient structure to support "wherein a first phase shift capacitance signal is generated from said first flexure plate and said fixed plate" in lines 16-18. In response to this objection, the Applicant amends the preamble of claim 1 to include a dual capacitance accelerometer having a signal generator, as suggested by the Examiner. Further, paragraph [0023] is amended to include the shared capacitor sensor 24 generates phase shift capacitance signals "as a function of a signal from a

signal generator 37 generating periodic signals and in response to acceleration of the aeronautical system 10." The Applicant has further amended Figure 4 to include reference to the signal generator 37. The Applicant believes that the signal generator was inherent in the claim design, as the Examiner pointed out that it would be required for operation of the system. Therefore, Applicant believes that no new matter has been added that was not already disclosed or taught in the specification.

Regarding the rejection of claim 6, the Examiner found it unclear that the structure of claim 6 is operatively connected to the system of claim 4. In response to this rejection the Applicant amends claim 6 to depend from claim 8. The Applicant believes that the rejection of claim 6 is hereby overcome.

In response to the rejection of claim 9, claim 9 is cancelled.

Regarding the rejection of claim 11, the Examiner found it unclear as to how the flexure plates are maintained in a common plane given that the flexure plates are rigidly affixed to the metal housing structure 36. In response to this rejection, the Applicant amends claim 11 to remove the term "common plane" and to include "in a state of equilibrium." In other words, as discussed in paragraph [0049] of the detailed description, "the system 10 utilizes the generated signals from the accelerometers 15, 17 to control the platform position to maintain a near-zero rotation." This near-zero rotation is generally what is referred to by state of equilibrium in the amended claim 11. No new matter has been added. In view of the aforementioned remarks, the rejection of claim 11 is believed to be overcome.

Regarding the rejection of claims 12 and 13, the Applicant cancels claims 12 and 13.

Regarding the rejection of claim 16, as discussed regarding the rejection of claim 11, the Examiner finds it unclear as to how the flexure plates are maintained in a common plane. The Applicant amends claim 16 to remove the term "common plane" and replace it with the term "state of equilibrium." No new matter has been added. The rejection to claim 16 is believed to be overcome by the aforementioned remarks.

Regarding the rejection of claim 20, the Examiner found it unclear as to how or why the fixed plate comprises a plurality of fixed plates. The Applicant submits that a plurality of fixed plates functioning as a single fixed plate may have slightly different characteristics as a single unit fixed plate. For example, a plurality of fixed plates may be arranged such that flexing a flexure plate may result in phase shift capacitance signals only when the flexure plate flexes in relation to a certain number of the plurality of fixed plates, rather than requiring a single phase shift capacitance signal be generated as a function of an entire single unit fixed plate. The Applicant believes that this explanation overcomes the rejection to claim 20, and no new matter has been added thereto.

Conclusions:

In view of the aforementioned remarks, it is respectfully submitted that all pending claims are in a condition for allowance. A notice of allowability is therefore respectfully solicited. Please charge any fees required in the filing of this amendment to Deposit Account 50-0476.

Should the Examiner have any further questions or comments please contact the undersigned. Please charge any fees required in the filing of this amendment to deposit account 06-1510.

Respectfully submitted,

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